Minutes of spin meeting 05/16/07

The discussion started with ongoing AGS pp setup. The beam loss after 300ms was almost gone after continuous tuning of orbit, tunes, chromaticities. We have about 9×10^{10} at AGS extraction now. Some limited polarization measurements (due to motion control failure) shows polarization around 55-60%. It seems timing for the polarimeter this year changed a lot after every mode switch. It often requires Kin Yip to redo calibration. Kin later told me the timing drift was not senstive to the AGS revolution tick. Yousef suggested to check all hardwares/power supplies. Another interesting finding is that beam can survive in the AGS with cold snake off. Comparing this lattice with cold snake on will give us more information on the AGS modeling.

Fanglei presented her spin tracking around $G\gamma = 5$, where two weak intrinsic resonances are located and acceleration rate is slow. Due to orbit distortion of snakes, the vertical tune can not be put into the spin tune gap. She did simulation for various tune path with 10% and 14% cold snake. The results show that pushing down vertical tune here gives better polarization (gain of 3-5%) in 14% cold snake case. For the 14% cold snake case, the vertical tune has to be pushed down further as the spin tune gap is larger in this case. Thomas suggested to check resonance strength with DEPOL for various tunes.

Haixin